

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

CARRIER CORPORATION,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Civ. No. 12-930-SLR
	)	
GOODMAN GLOBAL, INC.,	)	
GOODMAN MANUFACTURING	)	
COMPANY, L.P., GOODMAN GLOBAL	)	
HOLDINGS, INC., GOODMAN	)	
DISTRIBUTION, INC., AND	)	
GOODMAN SALES COMPANY,	)	
	)	
Defendants,	)	

**MEMORANDUM ORDER**

At Wilmington this <sup>14</sup> day of August, 2014, having heard argument on, and having reviewed the papers submitted in connection with, the parties' proposed claim construction;

IT IS ORDERED that the disputed claim language of U.S. Patent No. 7,243,004 ("the '004 patent") shall be construed consistent with the tenets of claim construction set forth by the United States Court of Appeals for the Federal Circuit in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005), as follows:

1. **"HVAC units:"**<sup>1</sup> "Heating, ventilation and air conditioning units." The patent is directed to "a heating, ventilation and air conditioning system." (1:7-8, 14-15)
2. **"Indoor unit" and "outdoor unit:"**<sup>2</sup> The court declines to construe these limitations, as the construction of "HVAC units," along with the plain and ordinary

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<sup>1</sup>Claims 14 and 18.

<sup>2</sup>Claims 6, 17, and 18.

meaning of “indoor” and “outdoor,” provide sufficient description for a jury to understand these limitations.

3. “[D]ata bus:”<sup>3</sup> “[W]ired connections shared by multiple hardware components capable of communicating electrical signals and information to and from one another.” The ‘004 patent explains that “[w]hile the various units are shown reporting directly to the microprocessor 23, in practice, it will be most preferred that they would communicate through a serial bus connection such as is disclosed in [the ‘452 patent],”<sup>4</sup> and such “preferred arrangement includes control wires providing a control communication bus . . . .” (3:65-4:6) The ‘452 patent describes that “[t]he data bus . . . is wired such that two of the wires, e.g., C and D, carry 24 volt AC power originating from the indoor unit 30 to power all other controls in the system. The other two wires, A and B, are used for system-wide communication and control.” (‘452 patent, 3:30-34) Such description supports the construction.

4. “[C]entral control:”<sup>5</sup> “[A] device capable of receiving user desired settings, receiving information from HVAC units, and communicating control signals to HVAC units.” This construction finds support in the specification, which explains that the various HVAC units “communicate with the [central control],” the microprocessors of the various HVAC units “receive instructions from the [central control],” and the central control “sends instruction to achieve temperature, etc. as requested by a user through

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<sup>3</sup>Claim 13.

<sup>4</sup>U.S. Patent No. 7,775,452.

<sup>5</sup>Claims 6, 17, and 18.

the thermostat.” (2:44-51) The court declines to limit “central control” to a preferred embodiment as suggested by both parties. (4:4-15 (preferably having communication pass through the indoor unit as suggested by Carrier<sup>6</sup>); ‘452 patent at 2:55-64 (describing a preferred embodiment in which the central control is both a bus master and a system master, as suggested by Goodman<sup>7</sup>))

5. “[C]ontrol algorithms:”<sup>8</sup> “[M]ore than one set of instructions which can be used to operate the combination of units in the system.”<sup>9</sup> The background of the invention describes the various HVAC units available for use in an HVAC system. (1:14-28) The specification describes that “the control is provided with information on each of the several units, and can identify a control strategy to encompass the individual characteristics of the several units, and to ensure they cooperate efficiently.” (1:10-14) “The central control is preferably provided with control algorithms to control the inter-related operation of the several units based upon the characteristics of each unit.” (1:63-65)

6. “[O]ptimal control strategy:”<sup>10</sup> “[A] predetermined control strategy best-suited to operate the system for a given combination of units.” The specification

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<sup>6</sup>Carrier Corporation (“Carrier”).

<sup>7</sup>Goodman Global, Inc., Goodman Manufacturing Company, L.P., Goodman Global Holdings, Inc., Goodman Distribution, Inc., and Goodman Sales Company (collectively, “Goodman”).

<sup>8</sup>Claims 17 and 18.

<sup>9</sup>The limitation is used in plural form in the asserted claims and, therefore, is construed as such.

<sup>10</sup>Claims 6 and 17.

describes that within the memory of the central control “are a plurality of available options” for the HVAC units. (3:35-37) After the units report to the central control, the central control “can then access a memory 24 to determine how the several units are best controlled in combination with each other to achieve optimal results.” (3:24-27) The central control “has available to it optimum operational strategies based upon the combination of several units that have reported” and “can identify and utilize appropriate controls for the particular combination.” (1:56-58, 3:43-45) The claims also use the plural form of this limitation, “optimal control strategies,”<sup>11</sup> “a plurality of optimal control strategies,”<sup>12</sup> and “[o]ptimum control algorithms,”<sup>13</sup> which are construed as “more than one ‘optimal control strategy.’” The parties agree that the ‘004 patent uses the term “algorithm” and “strategy” interchangeably.

7. “[D]etermining an optimal control strategy for said indoor unit and said outdoor unit,”<sup>14</sup> “selecting a particular one of said optimal control strategies,”<sup>15</sup> “selecting one of said plurality of control algorithms,”<sup>16</sup> and “determine optimum control algorithms.”<sup>17</sup> Such limitations do not require further construction. The court

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<sup>11</sup>Claim 16.

<sup>12</sup>Claims 6 and 17.

<sup>13</sup>Claims 17 and 18.

<sup>14</sup>Claims 6 and 17.

<sup>15</sup>Claims 6 and 17.

<sup>16</sup>Claim 18.

<sup>17</sup>Claims 6 and 17.

agrees with Carrier that these limitations add the terms “selecting” or “determining,” terms that have plain and ordinary meanings which, along with the provided constructions of “optimal control strategy,” “optimal control strategies,” and “control algorithm,” will be understood by the jury.

8. “[C]haracteristic(s)”<sup>18</sup> and “characteristic information:”<sup>19</sup>

“[P]reprogrammed information regarding the unit, such as size, type, capacity, model, and other parameters.” The specification states that “[t]he characteristic information is preferably programmed into each unit's microprocessor in the factory at the time the equipment is manufactured. . . . Alternatively, some configuration information may be factory[-]set by means of jumpers, switches, or model plugs.” (3:6-8) Citing to the specification's statement that “[t]his invention extends to the way the size, type, etc. information is supplied to the central control, Goodman argues that such “characteristic information” may be provided by a “user setting software flags.” (2:6-7) However, the specification does not describe any “user” inputs for the “characteristic information;” instead the specification states that “the ‘configuration’ is done at set-up” and “[i]f a unit is ever changed, the replacement unit will need to report its characteristic information.” (2:8-9, 3:19-22)

9. “[S]aid control:”<sup>20</sup> “[S]aid central control.” Claim 12 recites “[t]he system as set forth in claim 9, wherein said control receives characteristic information from a

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<sup>18</sup>Claims 6, 17, and 18.

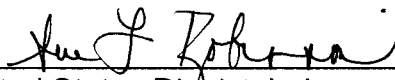
<sup>19</sup>Claims 6, 17, and 18.

<sup>20</sup>Claim 12.

connectivity kit.” Claim 9 recites “[t]he system as set forth in claim 6, wherein said central control . . . .” The claim language makes clear that “said control” in claim 12 refers to “said central control,” the only control recited in claim 9.

10. “[C]onnectivity kit:”<sup>21</sup> “[A] device enabling a user to monitor or change HVAC system conditions from a remote location.” The parties agree on this construction.

11. The court has provided a construction in quotes for the claim limitations at issue. The parties are expected to present the claim construction to the jury consistently with any explanation or clarification herein provided by the court, even if such language is not included within the quotes.

  
United States District Judge

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<sup>21</sup>Claim 12.